

REMARKS

Claim amendments

Applicant submits new independent claims 49 and 50. These claims include the limitation that the distal ends of the fibers rotate with the reflective surfaces.

In *Boppart* FIG. 21A, scanning is performed by machining the angle and pitch of the blade **312** so that “as the blade rotates in front of the beam, the reflected beam is directed to a different location along the imaging plane.”¹ This scanning procedure clearly would not work if the beam were to rotate with the blade **312**.

SECTION 102 REJECTION OF CLAIM 1

The section 102 rejection of claim 1 is improper for at least two reasons:

1. *Boppart* fails to disclose a rotatable housing; and
2. *Boppart* fails to disclose a housing that supports reflective surfaces.

These distinctions are discussed in more detail below:

No rotatable housing

Applicant draws attention to the limitation of

“an elongated housing rotatably supported on a flexible catheter sheath, said housing supporting first and second reflective surfaces”

Thus, according to claim 1, the housing has two properties:

1. the housing rotates; and
2. the housing supports reflective surfaces.

Boppart fails to disclose a housing that both: (1) rotates; and (2) supports reflective surfaces.

¹ *Boppart*, col. 32, lines 21-23.

Reflective surfaces not supported by a housing

The Examiner has identified two portions of the blade **312** shown in FIG. 21A as being the claimed first and second reflective surfaces.

The blade **312** is supported by the rotating shaft **316**. Certainly, the shaft **316** cannot be considered a housing. Therefore, the putative first and second reflective surfaces are not, in fact, supported by the housing as required by the claim language: "said housing supporting first and second reflective surfaces."

SECTION 102 REJECTION OF CLAIM 20

Claim 20 recites the limitation of a housing that has reflective surfaces disposed thereon. In particular, claim 20 recites:

"an elongated housing having a longitudinal axis of rotation, said housing having a first reflective surface disposed thereon;"

as well as

"a second reflective surface disposed on said housing distal to said first reflective surface and in axial alignment therewith;"

Boppart fails to disclose a housing that has any reflective surfaces disposed thereon.

The Examiner draws attention to FIG. 21A as showing the reflective surfaces recited in claim 20. But those reflective surfaces are not on any housing. They are on the blade **312**. Certainly, the blade **312** cannot be considered a housing.

It is apparent that *Boppart* fails to teach a housing that has "a first reflective surface disposed thereon" as required by the language of claim 20.

It is also apparent, for the same reasons, that *Boppart* fails to teach a second reflective surface that is "disposed on said housing" as required by the language of claim 20.

Therefore, *Boppart* fails to anticipate claim 20.

SECTION 102 REJECTION OF CLAIM 33

Claim 33 recites

“an optically-transparent sheath-enclosed elongated-housing having a longitudinal axis of rotation, said housing having a first reflective surface disposed thereon,”

“a second reflective surface disposed on said housing distal to said first reflective surface and in axial alignment therewith;”

Boppart fails to disclose a housing that has any reflective surfaces disposed thereon.

The Examiner has drawn attention to FIG. 21A as showing the reflective surfaces recited in claim 33. But those reflective surfaces are not on any housing. They are on the blade 312. Certainly, the blade 312 cannot be considered a housing.

It is apparent that *Boppart* fails to teach a housing that has “a first reflective surface disposed thereon” as required by the language of claim 33.

It is also apparent, for similar reasons, that *Boppart* fails to teach a second reflective surface that is “disposed on said housing” as required by the language of claim 33.

Therefore, *Boppart* fails to anticipate claim 33.

SECTION 102 REJECTION OF CLAIM 39

Claim 39 recites

“an optically-transparent sheath-enclosed elongated housing having a longitudinal axis of rotation, said housing having a delivery reflector disposed thereon;

a first collection reflector disposed on said housing distal to said first delivery reflector and in axial alignment therewith;

a second collection reflector disposed on said housing distal to said first collection reflector, said second collection reflector also being in communication with said controlled analytical-light generating source and in axial alignment therewith.”

Boppart fails to disclose a housing with any reflectors disposed thereon.

The Examiner has drawn attention to two reflective surfaces in FIG. 21A. But those surfaces are on a blade. The word "housing" can hardly be construed to cover a blade.

It is apparent that *Boppart* fails to teach a housing that has "a delivery reflector disposed thereon" as required by the language of claim 39.

It is also apparent that *Boppart* fails to teach a first collection reflector that is "disposed on said housing," as required by the language of claim 20.

In addition, claim 39 recites a *second* collection reflector. FIG. 21A of *Boppart* discloses *only two* reflective surfaces. Therefore *Boppart* fails to meet the claim limitation of a *second* collection reflector.

SECTION 102 REJECTION OF CLAIM 41

Claim 41 recites the limitation of

"disposing said beam redirectors at an angle with respect to said longitudinal axis, the angle being proportional to numerical apertures of said first and second energy fibers"

The Examiner has not pointed out anything in *Boppart* that discloses disposing beam redirectors at an angle that depends in any way on the numerical apertures of the optical fibers. In fact, nowhere does *Boppart* even refer to the numerical aperture of an optical fiber.

SUMMARY

Applicant has presented additional arguments for patentability in addition to those presented in earlier communications to the Office. Applicant's presentation of additional arguments is not intended as a repudiation of those arguments earlier presented. Those arguments are incorporated herein by reference. Moreover, Applicant's omission of other grounds for urging patentability is not intended to be an admission that no other grounds exist.

Now pending in this application are claims 1-43 and 44-50. Of these, claims 1, 20, 33, 39, 41, 49, and 50 are independent. Claims 9-12, 26-29, and 38 have been deemed allowable.

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Enclosed are fees for filing the RCE, for excess claims, and for an extension of time. If additional extensions are required, please consider this to be a request for such extensions.

No additional fees are believed to be due in connection with the filing of this request for continued examination. However, to the extent fees are due, or if a refund is forthcoming, please adjust our deposit account 06-1050, referencing attorney docket "12258-032001."

Respectfully submitted,

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